IN THE CLAIMS:

Claims 1 to 10 (cancelled)

Claim 11 (new) A method of fabricating an organic thin-film transistor comprising a substrate and an organic semiconductor layer, wherein the organic semiconductor layer is obtained by controlling temperature of the substrate to 30°C or higher and 65°C or lower and vacuum-depositing tetradecafluoropentacene ($C_{22}F_{14}$) on the substrate.

Claim 12 (new) A method of fabricating an organic thin-film transistor comprising a substrate and an organic semiconductor layer, wherein the organic semiconductor layer is obtained by controlling temperature of the substrate to 24°C or higher and 60°C or lower and vacuum-depositing dodecafluoronaphthacene ($C_{18}F_{12}$) on the substrate.

Claim 13 (new) An organic thin-film transistor comprising a substrate and an organic semiconductor layer, wherein the organic semiconductor layer is obtained by controlling temperature of the substrate and vacuum-depositing on the surface a fluorinated acene compound which is represented by a formula of $C_{4n+2}F_{2n+4}$, wherein n is an integer of 2 or greater.

Claim 14 (new) The organic thin-film transistor as claimed in claim 11, which further comprises a gate electrode, a source electrode, a drain electrode, and a gate insulating-film.

Claim 15 (new) The organic thin-film transistor as claimed in claim 11, wherein the temperature of the substrate is controlled to 30°C or higher and 65°C or lower and the formula fluorinated acene compound is tetradecafluoropentacene.

Claim 16 (new) The organic thin-film transistor as claimed in claim 13, which further comprises a gate electrode, a source electrode, a drain electrode, and a gate insulating-film.